ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT

OKEMO MOUNTAIN PROJECT
LUDLOW, VERMONT

Prepared By:
Elizabeth A. Parfenuk
Biologist

March 1986

Department of the Army
New England Division
Corps of Engineers
Waltham, Massachusetts

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Environmental Assessment and Finding of No Significant Impact, Okemo Mountain Project, Ludlow, Vermont		5. TYPE OF REPORT & PERIOD COVERED Environmental Assessment. 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Elizabeth A. Parfenuk U.S. Army Corps of Engineers (COE) New England Division		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of the Army, Corps of Engineers, New England Division, Planning, Impact Analysis Branch 424 Trapelo Road, Waltham, MA 02254-9149		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Department of the Army, Corps of Engineers, New England Division, Planning, Impact Analysis Branch 424 Trapelo Road, Waltham, MA 02254-9149		12. REPORT DATE March 1986 13. NUMBER OF PAGES 25
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approval for Public Release: Distribution Unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Environmental Assessment (EA)
Finding of No Significant Impact (FONSI)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This EA and FONSI describes the proposed Okemo Mountain Project located in Ludlow, Vermont. An existing prefabricated structure will support an antenna to be used as a radio repeater for signals sent to Corps of Engineers Flood Control projects. A distribution line path will be cut within a 20 foot wide working area which will extend 4,400 feet up the east, northeast side of Okemo Mountain. Wooden poles will support the line. Vegetation will be selectively cut, leaving growth 5 feet tall in place. Minimal impacts to environmental resources is anticipated.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

TABLE OF CONTENTS

I. INTRODUCTION

The New England Division (NED) of the United States Army Corps of Engineers has examined environmental resources as part of the planning and development of the proposed plan in compliance with the National Environmental Policy Act of 1969, and all appropriate environmental laws and regulations, executive orders, and executive memoranda. This report provides an assessment of any environmental impacts of the proposed action and reviews the alternatives considered.

This project is being conducted under the IRAC radio authority issued to the Corps in 1985 for an indefinite period of time.

II. PROPOSED PROJECT DESCRIPTION

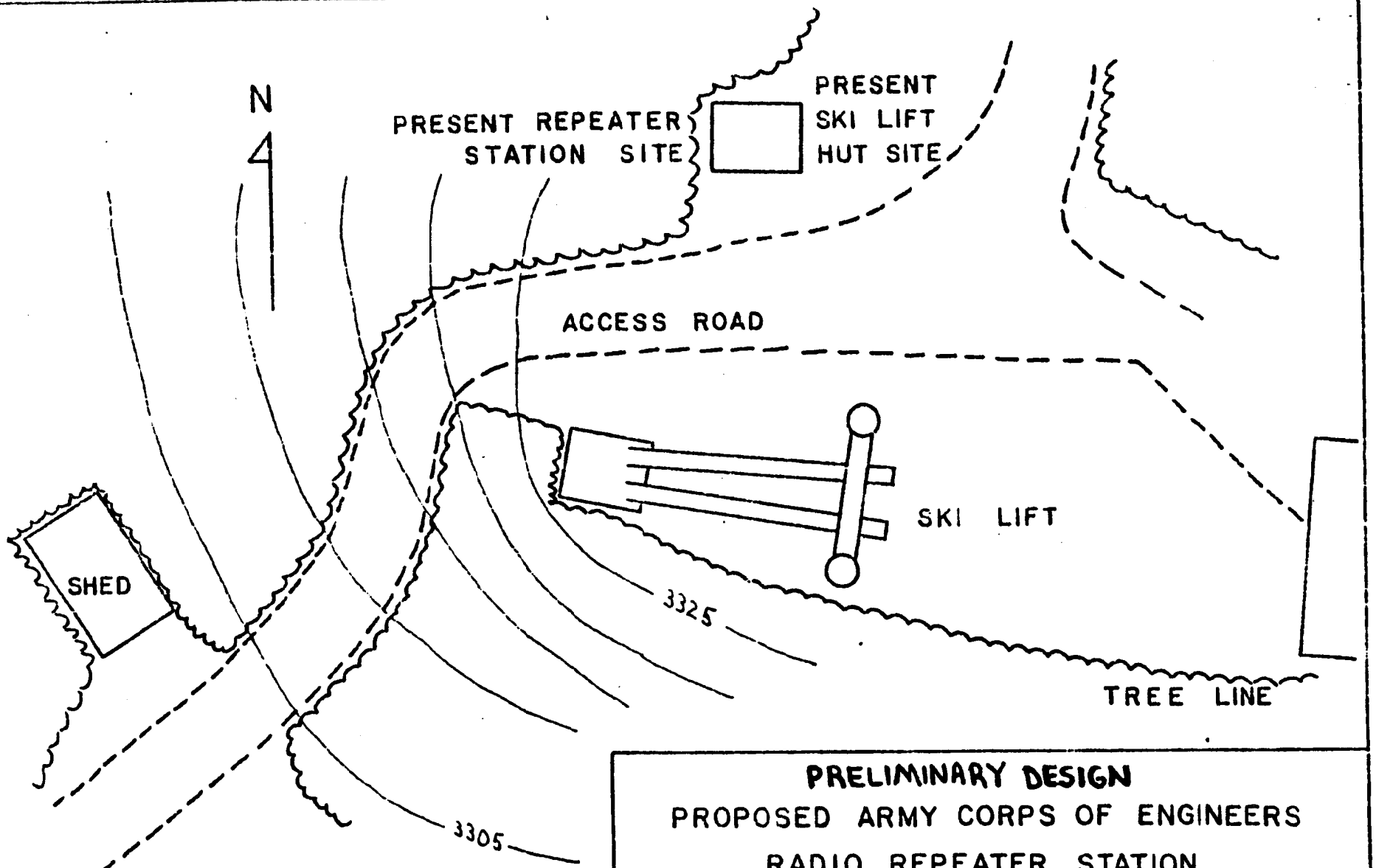
An 8 by 12 foot prefabricated structure on a stone base pad has already been constructed to support a 26 foot collinear antenna which will serve as a radio repeater for signals sent by the Corps of Engineers to Vermont Flood Control projects. A 7200 volt distribution line to be tied into the transmitter building will be supported by about 35, 40 foot high wooden poles. Approximately, a 20 foot wide working area to create a 10 foot wide, 4,400 foot long path will be selectively cut through a patch of trees adjacent to an existing ski lift and trail in order to supply power from an existing source to the building. The Contractor will be allowed a 95 foot wide working area, which includes two staging areas, for access into the proposed project site.

The selectively cut trees will be left on site. All trees under 5 feet tall will be undisturbed to minimize environmental damage and to provide some camouflage. Topping of trees to a 5 foot height will be permitted at the Contractor's option. Brush will not be cut or removed.

Holes approximately 5 feet deep (not including the layer of humus above the soil) will be dug where the wooden poles are to be placed. Material excavated will be spread evenly around the immediate area. Near the top of the project area, the rock to be excavated will be spread on the existing rock fill surrounding the prefabricated structure.

The proposed project will be constructed in 90 to 120 days. It is scheduled to start in June of 1986.

This project has been coordinated with the Vermont Agency of Environmental Conservation (VAEC) since this agency controls the area (Okemo State Forest) the project is situated in. The Okemo State Forest, found on Okemo Mountain, also surrounds the proposed project area. Mount Okemo is located in Ludlow, Vermont. (See Figure 1.)



PRELIMINARY DESIGN

PROPOSED ARMY CORPS OF ENGINEERS

RADIO REPEATER STATION

OKEMO MOUNTAIN

LUDLOW, VERMONT

SCALE: 1 INCH = 20 FEET

FIGURE 1

7/84 RRW

III. PURPOSE AND NEED FOR THE PROPOSED PROJECT

This project has been proposed to improve environmental conditions on Mount Ascutney. The location of the building is easily accessible by a 3 and a half to 4 mile access road or by ski chairlift or snowmobile, and provides a clear radio signal.

Currently, all existing equipment is housed in a building on Ascutney Mountain in Ascutney, Vermont. VAEC is very much in favor of this project since it helps clear some of the structures from Mount Ascutney.

The radio repeater will continue to be used by the Corps of Engineers as a means of communication by the five Vermont dams in the immediate vicinity.

IV. ALTERNATIVES

No Action - A no action alternative would require leaving conditions as they are on Mount Ascutney. This alternative is not viable since all users located in Mount Ascutney were asked to consolidate to improve the environmental conditions of the mountain top. The Corps chose to move to provide more reliable communication between the Corps Division office in Waltham, Massachusetts and the Flood Control projects in Vermont.

Other Site Alternatives - The Corps chose not to stay on Mount Ascutney since it is vulnerable to more sensitive weather conditions than other nearby mountains. Other nearby summits considered were not as easily accessible and did not provide as clear a signal as Okemo Mountain.

Okemo Mountain Alternative - This alternative is beneficial for many reasons: cleans up Mount Ascutney, consolidates equipment into one area, provides a clear signal, lies adjacent to a previously disturbed area (ski trail), and is easily accessible by a pre-existing access road. This proposed solution is in accordance with the existing town plan.

Distribution Line Alternatives - Three methods of placement were considered for the distribution line: bury, lie on ground, or support on poles. Burying the line would dissipate the electrical current along with being very costly, laying it on the ground would be a hazard due to high voltage, and consequently, supporting the line on poles was chosen.

V. AFFECTED ENVIRONMENT

A. Vegetation

The proposed project area lies within a State forest where generally, the lower portion of the proposed project area consists of maples (Acer spp.) and northern hardwoods, while the upper portion contains white birch (Betula papyrifera), red spruce (Picea rubens), and balsam fir (Abies balsamea). About 671 acres of this type are above the elevation suitable

for commercial timber production, but at slightly lower elevations there are 130 acres which are commercially operable. The higher, non-commercial area comprises 15% of the total forest area. Okemo is a steep mountain reaching an elevation of 3,343 feet NGVD. Although no timber is cut here, the mountain does supply wild seedlings for Christmas tree planting stock.

By far the largest cover type, 3,131 acres, is northern hardwood: birch (Betula spp.), beech (Fagus grandifolia), and maple (Acer spp.). These account for 70% of the total forest acreage. Another 5%, 250 acres, is in a similar cover type: sugar maple (Acer saccharum). Dispersed throughout each of these two timber types is an appreciable amount of white ash (Fraxinus americana).

The remaining major vegetative type is 242 acres of primarily seeded grasses and legumes growing on the ski trails and work roads. This area also includes strips and patches of non-commercial trees and miscellaneous low forest ground cover plants. The predominantly grass and legume cover type extends over 5% of the total area.

B. Soils

The Windsor County portion of the State Forest, a little over half of the total area, has been soil mapped. Two soils are identified: Stowe and Lyman. Except for one area, the Rutland County portion contains the same two soils. (See Figure 2.)

The Lyman soils are on the mountain top and ridge tops with Stowe soils lower on the slopes. The higher elevation Lyman soils are sandy glacial till. They are shallow to bedrock and have numerous rock outcrops. Permeability is rapid, available moisture is low, and fertility is very low. The Stow soils are well drained, very stony, and have numerous stones on the surface. The upper layer of soil is sandy or gravely glacial till and contains numerous cobblestones. At a depth of 15 to 30 inches, there is a compacted layer which causes upper soils to be saturated in the spring.

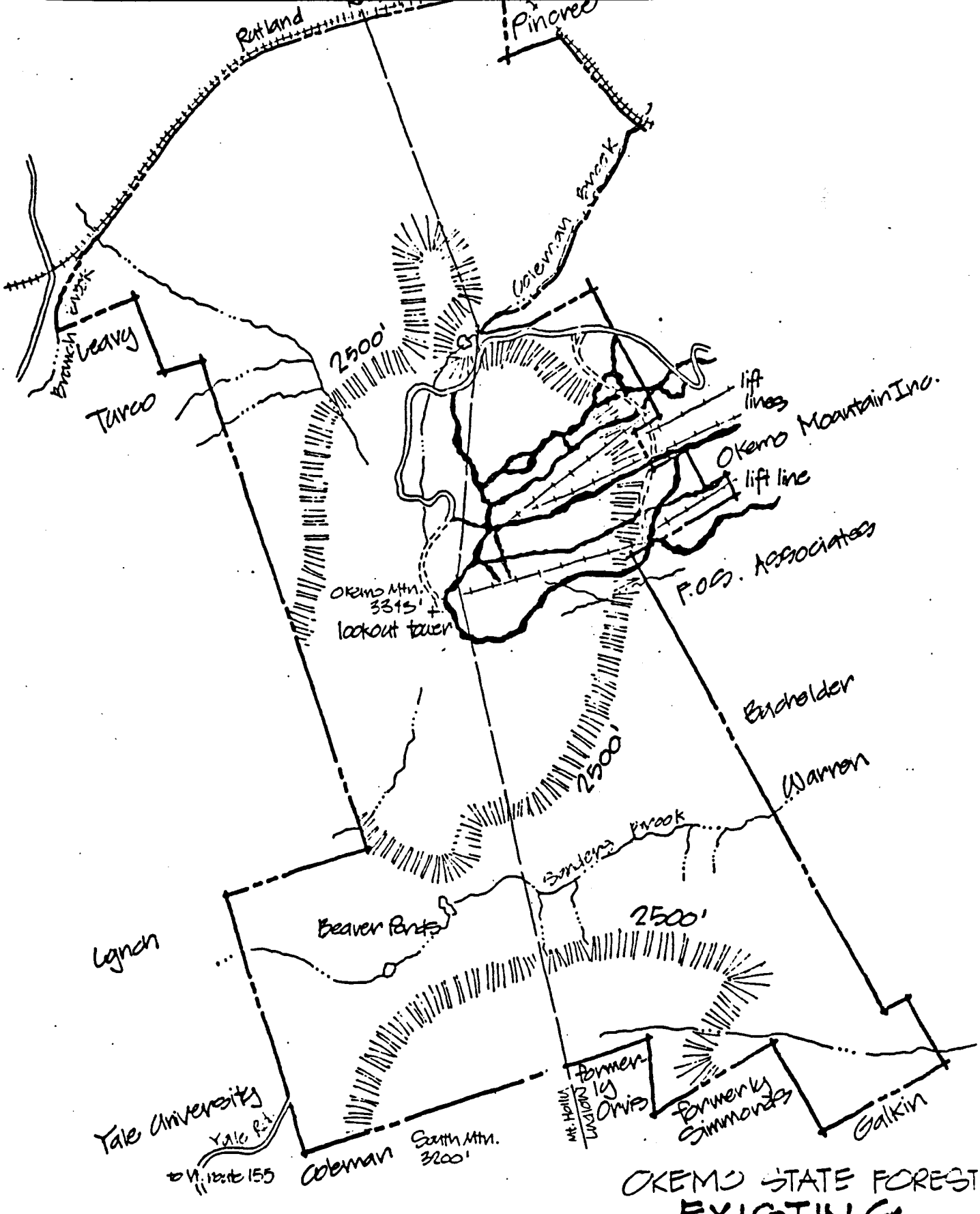
Most of Okemo State Forest is above 2,000 feet NGVD. The average productivity is less than is true for the same soils at lower elevations.

C. Recreation

Recreational development involving sewage facilities is adversely affected by the large areas of steep slope and stony soil surface. The problem is compounded by the limited points of access. However, the land area is so large that for many purposes, some place can be made suitable by proper engineering procedures. (See Figure 3.)

OKEMO MOUNTAIN - LUDLOW, VT

FIGURE 2



OKEMO MOUNTAIN - LUDLOW, VT

FIGURE 3

Some forms of recreation are not adversely affected by the soils. When the land is covered with snow, it is an excellent location for snow oriented activities. The upper slopes are the most vital requirement of a large ski resort business. A variety of soils which might be either good or poor for other purposes are perfectly suitable for snowmobile trails.

D. Wildlife

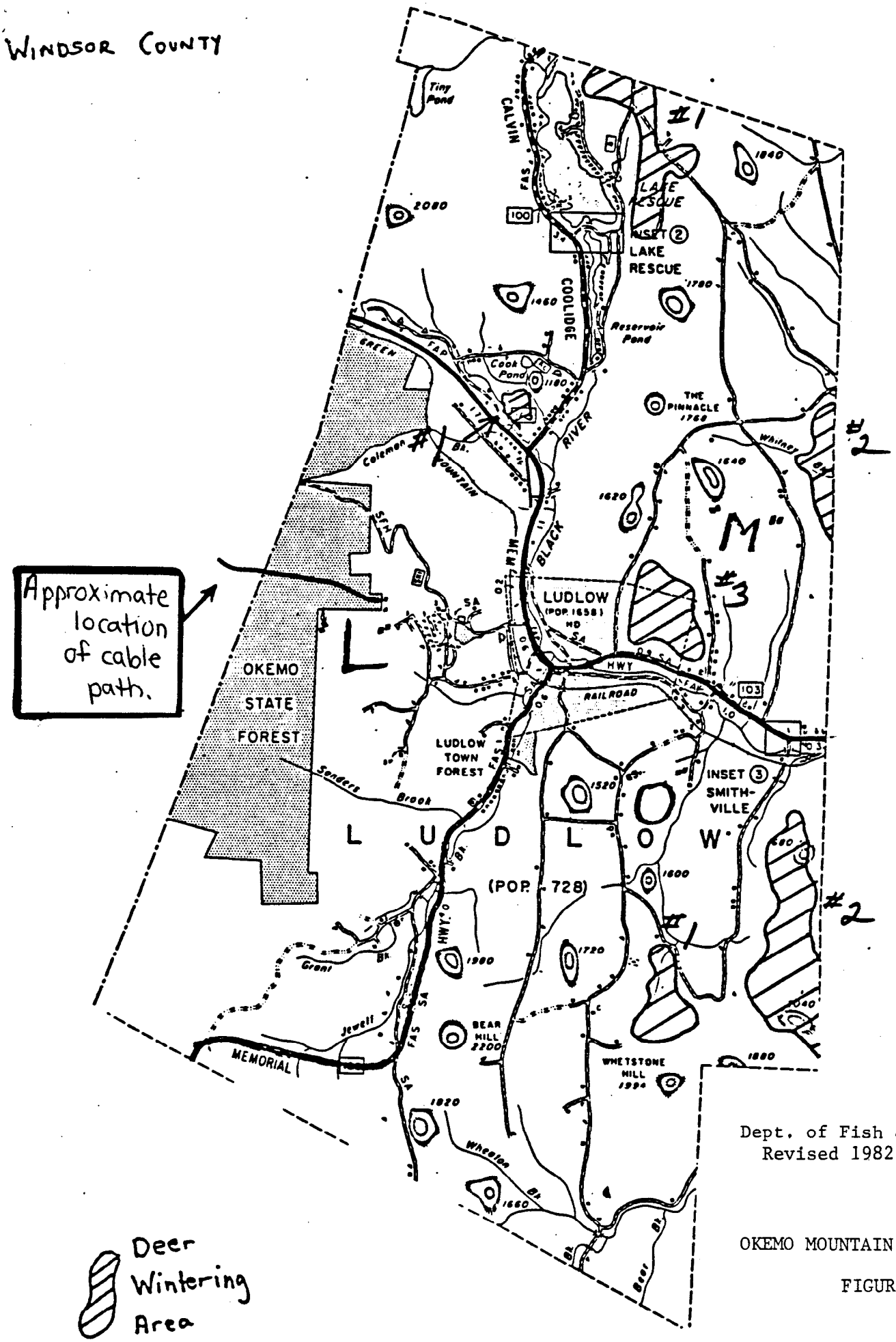
Most of the land area in Okemo State Forest is favorable to wildlife species which require large, undisturbed tracts of mature hardwoods. There are several square miles of habitat where the overhead canopy of forest foliage is unbroken, and there is no understory vegetation.

Also, the forest contains extensive areas of ideal denning conditions, both rock dens and hollow tree dens. Several species of fur bearers make use of the den sites. However, fur bearer populations do not compare with those near either agricultural areas or marsh areas where food supplies are much more available.

The most actively used wildlife area is in and around the beaver ponds although at present, there is no evidence of active beavers (Castor canadensis). Their nearby food source has been depleted. The water levels have dropped in the ponds, and they are no longer popular places to fish. They are still attractive to migrating waterfowl and the mud flats around the edge show evidence of visits by several species of animals, particularly raccoons (Procyon lotor). The proposed project site is 500 to 600 feet from any streams or marshes.

The populations of some popular game animals are somewhat limited by the absence of both understory growth and pioneer tree species. Except for the ski trails and beaver ponds, there have been few openings in the forest canopy. Very recent logging activity and road clearing have resulted in an immediate influx of wildlife, particularly white tail deer (Odocoileus virginianus). There are no deer wintering areas in the proposed project area. (See pertinent correspondence section - statement from Vermont Fish and Wildlife Department.) (See Figure 4.)

The wildlife condition that is most special to Okemo State Forest is the obvious evidence of a significant population of black bears (Ursus americanus). Other agency lands also have black bears, but none have the amount of bear sign there is on Okemo Mountain. The bear use is concentrated in two types of habitat. The largest is the mature hardwood forest on the south face of Okemo Mountain at elevations of 2,300 to 2,700 feet. Here, the predominant forest growth is beech and red maple (Acer rubrum). Unfortunately, the trees of both species are in very poor growing condition, with nearly all severely affected by insect injury, decay, and repeated ice damage. The species which attracts the bears is the beech. A second habitat type used by bear is the dense growth of speckled alder (Alnus rugosa) at the upper edges of the beaver ponds. This area is in the saddle between Okemo Mountain and South Mountain, a


WINDSOR COUNTY
Approximate location of cable path.
OKEMO STATE FOREST
LUDLOW (POP. 728)
LUDLOW (POP. 1658)
LUDLOW TOWN FOREST
LAKE RESCUE
INSET ② LAKE RESCUE
INSET ③ SMITH-VILLE
THE PINNACLE 1760
BEAR HILL 2200
WHETSTONE HILL 1994
Tiny Pond
Reservoir Pond
Coda Pond
Coleman Br.
Fountain Br.
Sanders Brook
Grant Br.
Jewell Br.
Wheeler Br.
Whitney Br.
Black River
CALVIN COOLIDGE
MEMORIAL
RAILROAD
HWY
FAS
FAP
SA
STH
Deer Wintering Area
Dept. of Fish & Game
Revised 1982, 1984
OKEMO MOUNTAIN - LUDLOW, VT
FIGURE 4

flat mucky area which is the headwaters of Saunders Brook flowing to the east and the main beaver pond watershed flowing to the west. The project area is located on the east-northeast side of the mountain away from popular black bear presence.

Since the mid-1970's, there have been scattered wild turkeys (Meleagris gallopavo) on Okemo Mountain. It is proof of the extreme hardiness of these gamebirds that they can survive the weather conditions of winter on Okemo Mountain. It is possible that grasses and legumes on the ski trails provide needed nesting and brood habitat. If this is the attraction, they must share the site with red fox (Vulpes fulva). Fox are frequently seen on the ski trails. Presumably, the fox are attracted to small rodents living in the grassy growth.

Bird species that may possibly inhabit Okemo include crossbills (Loxia spp.) and pine grosbeaks (Pinicola enucleator) in the winter; boreal chickadees (Parus hudsonicus) possibly nesting; and white-throated sparrow (Zonotrichia albicollis), juncos (Junco spp.), thrushes (Turdus and Catharus spp.), winter wren (Troglodytes troglodytes), hairy woodpecker (Picoides villosus), downy woodpecker (Picoides pubescens), pileated woodpecker (Dryocopus pileatus), and warblers (Vermivora spp.) that probably are nesting. The VAEC provided a list of the possible migrating and nesting birds of Okemo. The list was consolidated to species which may be present between June and November. (See Table 1.)

E. Threatened/Endangered Species

According to the Fish and Wildlife Service (March 17, 1986) and the Vermont Fish and Wildlife Department (March 14, 1986), except for the possibility of transient individuals, there are no threatened or endangered species of Federal or State plants or animals in the proposed project area on Okemo Mountain.

F. Cultural Resources

The State Historic Preservation Officer (SHPO) was contacted in reference to any historic or archaeological resources in the proposed project area. A determination was made that a letter would not be required since there are no cultural resources present. It was agreed that the telephone log of the conversation between Corps archaeologist, John Wilson and the SHPO would be sufficient coordination (February 24, 1986).

VI. ENVIRONMENTAL CONSEQUENCES

A. Vegetation

A roughly 4,400 foot long, 10 foot wide path will be cut through the trees to provide for a new aerial distribution line which will connect an existing power line to the new repeater station. The path will require

Table 1
Bird Species of Okemo Mountain
Presence Possible as a Migrant and/or Nester

Common Name	Occurrence	Nesting	June-August	September-November
Goshawk	Reg Mig	Reg	U	U
Sharp-shinned Hawk	Reg Mig	Reg	U	C
Coopers Hawk	Reg Mig	Reg	U	L
Broad-winged Hawk	Reg Mig	Reg	L	L
Pigeon Hawk	Ir Mig	---	U	U
Ruffed Grouse	Res	Reg	C	C
American Woodcock	Reg Mig	Reg	C	C
Black-billed Cuckoo	Reg Mig	Reg	L	L
Screech Owl	Res	Reg	L	L
Great-horned Owl	Res	Reg	C	C
Barred Owl	Res	Reg	C	C
Long-eared Owl	Res	Reg	U	U
Saw-whet Owl	Res	Reg	L	L
Yellow-shafted Flicker*	Reg Mig	Reg	C	C
Pileated Woodpecker	Res	Reg	L	L
Yellow-bellied Sapsucker	Reg Mig	Reg	C	C
Hairy Woodpecker	Res	Reg	C	C
Downy Woodpecker	Res	Reg	C	C
Black-backed Three-toed Woodpecker	Ir Vis	Un	R	U
Crested Flycatcher	Reg Mig	Reg	C	C **

Common Name	Occurrence	Nesting	June-August	September-November
Eastern Phoebe	Reg Mig	Reg	C	C
Yellow-bellied Flycatcher	Reg Mig	Reg	L	U
Least Flycatcher	Reg Mig	Reg	C	C
Wood Pewee	Reg Mig	Reg	C	C
Olive-sided Flycatcher	Reg Mig	Reg	L	L
Tree Swallow	Reg Mig	Reg	C	C **
Common Raven	Res	Reg	L	L
Common Crow	Reg Mig	Reg	C	A
Black-capped Chickadee	Res	Reg	A	A
Boreal Chickadee (Brown-capped)	Ir Mig	Reg	L	U
White-breasted Nuthatch	Res	Reg	C	C
Red-breasted Nuthatch	Res	Reg	L	L
Brown Creeper	Reg Mig	Reg	L	L
Winter Wren	Reg Mig	Reg	L	L
Catbird	Reg Mig	Reg	C	C
Brown Thrasher	Reg Mig	Reg	L	L
Robins	Reg Mig	Reg	A	A
Wood Thrush	Reg Mig	Reg	C	C
Hermit Thrush	Reg Mig	Reg	C	C
Swainson's Thrush	Reg Mig	Reg	C	C
Gray-cheeked Thrush	Reg Mig	Reg	L	L
Veery	Reg Mig	Reg	C	C

Common Name	Occurrence	Nesting	June-August	September-November
Golden-crowned Kinglet	Reg Mig	Un	U	L
Ruby-crowned Kinglet	Reg Mig	Reg	U	C
Cedar Waxwing	Reg Mig	Reg	C	C
Solitary Vireo	Reg Mig	Un	U	L
Red-eyed Vireo	Reg Mig	Reg	C	C
Philadelphia Vireo	Reg Mig	Un	U	U
Black-and-white Warbler	Reg Mig	Reg	C	C
Tennessee Warbler	Reg Mig	Un	L	L
Nashville Warbler	Reg Mig	Reg	L	L
Parula Warbler	Reg Mig	Reg	L	L
Magnolia Warbler	Reg Mig	Reg	C	C
Cape May Warbler	Reg Mig	Un	U	U
Black-throated Blue Warbler	Reg Mig	Reg	C	C
Myrtle Warbler	Reg Mig	Reg	C	C
Black-throated Green Warbler	Reg Mig	Reg	C	C
Blackburnian Warbler	Reg Mig	Reg	C	C
Bay-breasted Warbler	Reg Mig	Un	U	U
Black-poll Warbler	Reg Mig	Reg	L	C
Ovenbird	Reg Mig	Reg	C	C
Canada Warbler	Reg Mig	Reg	C	C
American Redstart	Reg Mig	Reg	C	C
Scarlet Tanager	Reg Mig	Reg	C	C
Rose-breasted Grosbeak	Reg Mig	Reg	C	C **

Common Name	Occurrence	Nesting	June-August	September-November
Evening Grosbeak	Reg Mig	Reg	U	C
Purple Finch	Reg Mig	Reg	C	C
Hoary Redpoll	Ir Vis	---	---	---
Common Redpoll	Ir Vis	---	---	C **
Pine Siskin	Ir Vis	Un	R	C
Common Goldfinch	Reg Mig	Reg	C	C
White-winged Crossbill	Ir Vis	Un	R	L
Slate-colored Junco	Reg Mig	Reg	L	C
Tree Sparrow	Reg Mig	---	---	C
White-throated Sparrow	Reg Mig	Reg	C	C

* Hybrid flickers have been found occasionally in the Bennington area.
** Indicates only part of period pertains.

DEFINITION OF CATEGORIES

ABUNDANCE

A - Abundant: Numerous and widespread (e.g. robin or red-winged blackbird).

C - Common: Evidence of presence easily established when searching the proper habitat at the proper time.

L - Limited: Not necessarily difficult to find but fewer in number than common when comparing members of a family.

U - Uncommon: Considerably less abundant than common or limited. Evidence of presence difficult to obtain.

R - Rare: Very few records but still cannot be considered accidental; could be expected to appear occasionally.

The categories of abundance are intended only as a means of comparison among members of a family and no numerical significance is intended.

OCCURRENCE

RES - Resident:	Remaining throughout the year and having no definite migration patterns.
REG MIG - Regular Migrant:	Appearing with predictable regularity going to or from breeding areas.
IR MIG - Irregular Migrant:	Not enough records exist to determine regularity.
IR VIS - Irregular Visitor:	Wandering rather than in migration.

NESTING CATEGORIES

REG - Regular:	Known; year to year nesting records. (Note spring abundance category for amount that might occur.)
IR - Irregular:	Questionable regularity, but nesting records exist.
UN - Uncertain:	Vermont within the recognized nesting range but insufficient information available for proper categorization.

Reference: Agency of Environmental Conservation letter dated 11 April 1986.

the removal of approximately 700 trees. Lower growth will remain intact to minimize environmental impacts. The trees will be selectively cut to avoid damaging the project area with heavy equipment. The trees to be cut will be marked before construction activities begin. Debris will not be located near any streams or wetlands to avoid affects to water quality. Spring melt runoff has created a rill which may intersect the intended path of the distribution line poles. The proposed project should not affect the functioning of the rill as a runoff conduit nor the water quality of the runoff. The debris will, however, be left in place on the mountain and allowed to naturally decompose.

B. Soils

Erodibility of the soils in the project area depends not only on the type of soils present, but also the slope of the area in question. The average slope of the proposed project area is roughly 25 percent.

To reduce adverse impacts due to soil erosion, construction will be performed in such a way that all trench excavation will proceed at a rate so that no trench will be exposed at the end of each work day. All required seeding and mulching will be completed within 24 hours of backfilling. Seeding and mulching have been included in the project plans in order to stabilize the soil until grass grows.

Temporary erosion control measures will be part of the contract, for example, hay bales. The excavation for an underground conduit near the repeater station will be backfilled with concrete since this portion is on exposed rock.

C. Recreation

Minimal impacts to the existing forms of recreation (namely skiing and snowmobiling) should be experienced as a result of the proposed project. Although the area lies adjacent to a ski trail, the narrowness of the path will reduce the area's hazard potential to skiers. The minimum clearance from the conductor to the ground surface will be 20 feet as a safety precaution. A 3 foot snow cover will be assumed and clearance will be measured from the snow.

The narrow width of the path should also reduce the effect of a scar on the face of the mountain. The area is aesthetically pleasing so every consideration to not reduce the beauty of the area was investigated. The building itself will have no exterior lights or signs to reduce adverse aesthetic impacts.

Little if any adverse impacts to air quality will result from the proposed project and its construction. Helicopters may be used to bring in construction materials. The trees will be cut with chain saws instead of heavy machinery which should benefit potential air quality impacts.

The building will house a new storage battery generator which requires an electrical, commercial power supply. The diesel stand-by generator used on Ascutney would sometimes experience oil spills. This situation will not occur with the type of generator being installed on Okemo. A very small lean-to structure will be built next to the new building to provide the ski patrol and lift operators with shelter.

Noise levels during construction will rise due to possible helicopter activity and power tools being used to cut trees. This noise increase will only be associated with the construction of the project. After the 90 to 120 day construction labor period, noise levels will return to normal conditions.

D. Wildlife

Overall, impacts on wildlife include potential effects on deer wintering areas, nesting birds, migratory birds, and resident wildlife. After extensive coordination with the Vermont Agency of Environmental Conservation (VAEC) and the U.S. Fish and Wildlife Service (FWS), the following discussions on impacts were deduced.

There are no mapped deer wintering areas within the proposed project area boundaries. The project site is most likely considered to be at too high an elevation (approximately 2,300 feet NGVD to 3,300 feet NGVD) to be suitable deer wintering habitat. Therefore, no affect on deer wintering areas is anticipated to result from the proposed project or its construction.

Nesting birds do exist in the proposed project area. It is also highly likely that migrating birds pass through and/or nest in the area. Migratory birds are protected under the Migratory Bird Treaty which finds it unlawful to take, kill, or possess migratory birds. We would not be impacting this resource in any of these ways. However, we may displace some nesting and migratory birds due to construction activities.

Due to funding and construction constraints, the project construction is scheduled to occur between 15 June and 15 September. This project is funded by a revolving fund which restricts project activities to this fiscal year which ends 30 September 1986. The construction time frame is limited also by snows which begin in October and consequent recreational activity. The scheduled time frame is not ideal in preventing potential impacts to nesting birds. Both the VAEC and FWS feel that a suitable time frame for the project is in the fall from August to November, however, as discussed above, this would not be possible.

The potential impact on nesting birds of significance remains small, but to alleviate concerns and retain a workable time frame, representatives from the VAEC, FWS, and NED will accompany the State's District Forester during the previously mentioned selective tree marking process. A general path will be followed unless a particularly significant bird is

found in the intended path. The proposed area has the potential to impact breeding bird species of significance, however, it is not known whether any exist in the proposed project area. In order to address this question, VAEC, FWS, and NED will survey the proposed project area during the tree marking process immediately before construction activities begin to determine whether any constraints should be placed on the project activities in relation to bird species of significance.

Resident wildlife should avoid the construction area and relocate temporarily to surrounding areas which do exist in abundance. After construction, the small area of disturbance should not affect the possibility of wildlife from moving back into the project area. Consequently, no great impact on wildlife is expected.

E. Threatened/Endangered Species

Since only transient individuals are expected to occur in the proposed project area, no affect on any Federal or State threatened or endangered species is anticipated. (See letters in pertinent correspondence section of this assessment.)

F. Cultural Resources

Coordination resulted in a determination of no impact to any historic or archaeological resources in the proposed project area.

VII. MITIGATION AND COORDINATION

In order to mitigate for adverse impacts to nesting and migratory birds during construction of the proposed project, VAEC, FWS, and NED have agreed to participate in the tree marking process. Other mitigation measures include soil erosion control practices, project design to lessen skier hazards, aesthetic considerations, and controlled project area disturbance.

Coordination with various Federal and State agencies was initiated in February of 1986 and includes the following:

Vermont Agency of Environmental Conservation, Montpelier and North Springfield, Vermont
- Jay Maciejowski - District Forester
- Kim Royah - Biologist
- Charles W. Johnson - State Naturalist

U.S. Fish and Wildlife Service, Concord, New Hampshire
- Ron Joseph - Wildlife Biologist

Environmental Protection Agency, Boston, Massachusetts

State Historic Preservation Office, Montpelier, Vermont

VIII: COMPLIANCE WITH ENVIRONMENTAL PROTECTION STATUTES AND EXECUTIVE ORDERS

Statutes	Compliance
1. Preservation of Historic and Archaeological Data Act of 1974, as amended, 16 U.S.C. 469 et seq.	1. No impact on cultural resources is expected. (Telephone coordination of February 24, 1986.)
2. Clean Air Act, as amended, 42 U.S.C. 7401 et seq.	2. Submission of this assessment to the Environmental Protectic Agency for review constitutes compliance with this Act.
3. Clean Water Act (Federal Water Pollution Control Act), as amended, 33 U.S.C. 1251 et seq.	3. Not applicable.
4. Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1531 et seq.	4. Not applicable.
5. Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq.	5. Coordination with the U.S. Fish and Wildlife Service (FWS) constitutes compliance with this Act. (See letter in pertinent correspondence section.)
6. Estuarine Areas Act, 16 U.S.C. 1221 et seq.	6. Not applicable.
7. Federal Water Project Recreation Act, as amended, 16 U.S.C. 4601-5 et seq.	7. Not applicable.
8. Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661 et seq.	8. Coordination with the FWS constitutes compliance with this Act. (See letter in pertinent correspondence section.)
9. Land and Water Conservation Fund Act of 1965, as amended, 16 U.S.C. 460d-7 et seq.	9. Not applicable.
10. Marine Protection, Research, and Sanctuaries Act of 1972, as amended, 33 U.S.C. 1401 et seq.	10. Not applicable.
11. National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.	11. Same as number one above.
12. National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 et seq.	12. Preparation of this document constitutes compliance with this Act.
13. Rivers and Harbors Appropriation Act of 1899, as amended, 33 U.S.C. 401 et seq.	13. Not applicable.
14. Watershed Protection and Flood Prevention Act, as amended, 16 U.S.C. 1001 et seq.	14. Not applicable.
15. Wild and Scenic Rivers Act, as amended, 16 U.S.C. 1271 et seq.	15. Not applicable.
Executive Orders	
1. Executive Order 11988, Floodplain Management, 24 May 1977 amended by Executive Order 12148, 20 July 1979.	1. Not applicable.
2. Executive Order 11990, Protection of Wetlands, 24 May 1977.	2. Not applicable.
3. Executive Order 12114, Environmental Effects Abroard of Major Federal Actions, 4 January 1979.	3. Not applicable.
Executive Memorandum	
1. Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA, 11 August 1980.	1. Not applicable.

IX. REFERENCES

Okemo State Forest Management Plan, 1984. Prepared by the Vermont Agency of Environmental Conservation, Department of Forests, Parks, and Recreation.

Migratory Bird Treaty, as amended.

X. ACKNOWLEDGMENTS

A special thanks is being extended to the people at the Vermont Agency of Environmental Conservation who quickly provided me with helpful environmental resource information. All coordination efforts went smoothly which resulted from the ease of cooperation by all the participating agencies.

FINDING OF NO SIGNIFICANT IMPACT

After careful consideration of the information in this environmental assessment, it is my conclusion that development of the proposed project is in the public interest (State-owned land, State-funded project). The Vermont Agency of Environmental Conservation (VAEC) supports this project to enhance the environmental conditions on Mount Ascutney (site of the existing transmitter) while only minimally impacting those on Mount Okemo (site of the proposed relocation of the transmitter).

The proposed project will provide for a 7200 volt distribution line and poles which will be connected to a radio repeater building situated near the summit of Mount Okemo. Trees will be selectively hand cut along a 20 foot wide working area creating a 10 foot wide path that will extend 4,400 feet up the east-northeastern side of the mountain. The actual construction of the project will last 90 to 120 days, and is scheduled to start in June of 1986.

An environmental assessment has been prepared in accordance with the National Environmental Policy Act of 1969, and appropriate environmental laws, regulations, statues, executive orders, and executive memoranda. The determination that an environmental impact statement is not required is based on the information contained in the environmental assessment and the following considerations:

1. The proposed plan would not involve wetlands, wild and scenic rivers, threatened/endangered species, or cultural resources.

2. The construction impacts associated with the proposed project are limited to a confined area where several hundred selected trees will be felled leaving those under five feet tall standing.

3. During coordination with the VAEC and the U.S. Fish and Wildlife Service (FWS), it was revealed that there was a concern for a potential to impact nesting and migrating birds during the construction time frame selected (15 June to 15 September). Since these time restrictions cannot be placed on the construction dates due to funding constraints, potential impacts to nesting and migrating birds should be avoided by selectively marking the trees to be cut. This selective tree cutting is being undertaken to avoid impacts to visual aesthetics, wildlife, and vegetation. With representatives from VAEC, FWS, and NED this process will provide assurance that impacts to birds will be minimized.

4. There is sufficient surrounding habitat for any disrupted wildlife to move into, if only on a temporary basis, due to construction activities.

5. Minimal impacts to noise or air quality are anticipated due to compliance with EPA regulations for heavy equipment (emission standards) and the short duration of the construction period of the proposed project.

6. Mitigation measures include soil erosion control devices and project design considerations (e.g. narrow path design, felling trees in place, possible use of helicopters for transport of poles, and hand cutting trees) to lessen skier hazards, aesthetics impacts, and construction disturbance due to the use of heavy equipment.

Based on my review and evaluation of the environmental effects as presented in the environmental assessment, I have determined that the Okemo Mountain Project located in Ludlow, Vermont is not a major Federal action significantly affecting the quality of the human environment and is, therefore, exempt from requirements to prepare an environmental impact statement.

7 May 86
Date

Thomas A. Rhen
THOMAS A. RHEN
Colonel, Corps of Engineers
Division Engineer

PERTINENT CORRESPONDENCE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

April 30, 1986

Joseph L. Ignazio, Chief
Planning Division
New England Division
U.S. Army Corps of Engineers
424 Trapelo Road
Waltham, MA 02254-9149

Dear Mr. Ignazio:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act we have reviewed the Draft Environmental Assessment and Draft Environmental Finding of No Significant Impact for the Okemo Mountain Project located in Rutland and Windsor Counties, Vermont.

From the standpoint of EPA's areas of jurisdiction and expertise, we have no objections to the project. However, we understand that an underground conduit was considered as an alternative to the 7200 volt, 4400 foot aerial distribution line, but for several reasons was determined to be not feasible. We believe the Corps should take credit for considering this option as well as present the information in the Environmental Assessment.

Thank you for the opportunity to review the Draft Environmental Finding of No Significant Impact.

Sincerely yours,

Elizabeth A. Higgins, Assistant Director
for Environmental Review
Office of Government Relations
& Environmental Review (RGR-2203)

cc: Betty Parfenuk, Impact Analysis Branch
Planning Division, COE

State of Vermont

AGENCY OF ENVIRONMENTAL CONSERVATION

Montpelier, Vermont 05602

Department of Fish and Wildlife
Department of Forests, Parks, and Recreation
Department of Water Resources & Environmental Engineering
State Geologist
Natural Resources Conservation Council

DEPARTMENT OF FORESTS, PARKS AND RECREATION

April 11, 1986

Ms. Betty Parfenuk
Planning Division
Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254

Dear Ms. Parfenuk:

Enclosed is the information you requested on migratory birds in the Okemo Mountain area.

Please note that the species highlited only possibly occur in the region, either as migrants or nesters. The zone of interest runs through northern hardwoods to boreal, so the habitats are at least there for those species; the probability of each species being there, though, likely matches the "status" category in the list.

Sincerely,

Charles W. Johnson
State Naturalist

RC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

Joseph L. Ignazio
Chief, Planning Division
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02254

MAR 17 1987

Dear Mr. Ignazio:

This responds to Ms. Betty Parsenuk's telephone request for information on wildlife which may be impacted by the Corps' proposal to modify an existing transmitter operation site at Okemo Mountain in Ludlow, Vermont. Our primary concern is the impact to nesting birds from the removal of trees within a 10 foot wide, 4410 foot long corridor. Your proposed work schedule of June 15 to September 15 overlaps with the nesting season of a variety of birds protected by the Migratory Bird Treaty Act.

I suggest a member of your staff contact Vermont Fish and Wildlife to arrange a field trip to the site in late-May to census the nesting songbirds, game birds and raptors in the project area. Ron Joseph of my staff is familiar with the Vermont bird songs and would be available to participate on the field trip. If nests are discovered, it may be necessary to delay timber harvest operations near nest sites until young birds fledge in late-July. However, this should not significantly change the project completion dates. If you have any questions, please contact Mr. Joseph at FTS 834-4411.

Sincerely yours,

Gordon E. Beckett

Gordon E. Beckett
Supervisor
New England Area

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

Joseph L. Ignazio
Chief, Planning Division
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02254

Dear Mr. Ignazio:

This responds to your February 27, 1986 request for information on the presence of Federally listed and proposed endangered or threatened species near Okemo Mountain in Ludlow, Vermont.

Our review shows that except for occasional transient individuals, no Federally listed or proposed species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further consultation is required with us under Section 7 of the Endangered Species Act. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to endangered species under our jurisdiction. It does not address other legislation or our concerns under the Fish and Wildlife Coordination Act.

A list of Federally designated endangered and threatened species in Vermont is enclosed for your information. Thank you for your cooperation and please contact us if we can be of further assistance.

Sincerely yours,

Gordon E. Beckett
Supervisor
New England Area

Enclosure

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN VERMONT

Common Name	Scientific Name	Status	Distribution
FISHES:			
NONE			
REPTILES:			
NONE			
BIRDS:			
Eagle, bald	Haliaeetus leucocephalus	E	Entire state - migratory
Falcon, American peregrine	Falco peregrinus anatum	E	Entire state-reestablishment to former breeding range is in progress
MAMMALS:			
Bat, Indiana	Myotis sodalis	E	Southwestern Counties
Cougar, eastern	Felis concolor couguar	E	Entire state - may be extinct
MOLLUSKS:			
NONE			
PLANTS:			
Small Whorled Pogonia	Isotria meleoloides	E	Chittenden County

Rev. 2-11-86

FEDERALLY PROPOSED ENDANGERED AND THREATENED SPECIES
IN VERMONT

Common Name	Scientific Name	Status	Distribution
Jesup's milk-vetch	*Astragulus robbinsii* var. *jesupi*	Proposed as Endangered 12/19/85	Connecticut River Valley

Determination that this plant is endangered would make it eligible for the protection provided by Section 7 of the Endangered Species Act of 1973, as amended. Proposed species are offered limited protection under Section 7(a)(4), which requires Federal agencies to confer with the Service on actions which may jeopardize the proposed species.

Vermont Fish and Wildlife Department
March 14, 1986

The following bird species may possibly be found at the summit of Okemo Mountain:

In winter

Crossbills
Pine Grosbeaks

Possibly nesting

Boreal Chickadee

Probably nesting

White-throated Sparrow
Juncos
All Thrushes (except Gray-cheeked)
Winter Wren
Hairy Woodpecker
Downy Woodpecker
Pileated Woodpecker
A number of Warblers (not Bay-breasted or Cape May)

No rare plants or animals are know to exist there. Also, there are no mapped deer wintering areas existing on the summit of Okemo Mountain (see attached map).